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Reply to the Office Action of 28 September 2007

Amendment of the Claims:

This listing of claims will replace all prior versions and listings of the claims in the application:

Listing of Claims:

Claim 1 (Withdrawn): An isolated and purified nucleic acid molecule having a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence set forth in Figure 3, 4 or 5 (SEQ ID Nos: 5, 6, 8, 10) for *Moraxella catarrhalis* strains 4223, Q8 and LES-1 respectively or the complementary sequence thereto,
- (b) a nucleotide sequence encoding an about 200 kDa outer membrane protein of a strain of *Moraxella catarrhalis* and having the derived amino acid sequence shown in Figures 3, 4 or 5 (SEQ ED Nos: 7, 9, 11) for *Moraxella catarrhalis* strains 4223, Q8 and LES-1 respectively, and
- (c) a nucleotide sequence encoding an about 200 kDa outer membrane protein of another strain of *Moraxella catarrhalis* which is characterized by a tract of consecutive G nucleotides which is 3 or a multiple thereof in length, an ATG start codon about 80 to 90 bp upstream of said tract and said tract being located between about amino acids 25 and 35 encoded by the nucleotide sequence.

Claim 2 (Withdrawn): The nucleic acid molecule of claim 1 wherein said another strain of *Moraxella catarrhalis* in (c) is a strain as identified in Table IA other than strains 4223, Q8 and LES-1 and expressing an about 200 kDa protein.

Claim 3 (Original): An isolated and purified nucleic acid molecule having a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence set forth in Figure 8 (SEQ ID No: 12) for a 5'- truncation of the gene encoding an about 200 kDa outer membrane protein of *Moraxella catarrhalis* strain 4223 contained in pECS348,
- (b) a nucleotide sequence encoding the derived amino acid sequence set forth in Figure 9 (SEQ ID No: 13) for a N-terminal truncation of an about 200 kDa outer membrane protein of *Moraxella catarrhalis* strain 4223 produced by pKS348,

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(c) a nucleotide sequence set forth in ~~Figure 21~~ (SEQ ID No: 45) for a 5' truncation of the gene encoding an about 200 kDa outer membrane protein of *Moraxella catarrhalis* strain 4223 contained in pQWF,

(d) a nucleotide sequence encoding the ~~derived~~ amino acid sequence set forth in ~~Figure 21~~ (SEQ ID No: 46 for a N-terminal truncation of an about kDa outer membrane protein of *Moraxella catarrhalis* strain 4223 produced by pQWF,

(e) a nucleotide sequence set forth in ~~Figure 21~~ (SEQ ID No: 47) for a 5'- and 3'-truncation of the gene encoding an about 200 kDa outer membrane protein of *Moraxella catarrhalis* strain 4223 contained in pBR T7 3' 200 kDa(t),

~~[[f]] a nucleotide sequence encoding the derived amino acid sequence set forth in Figure 21 (SEQ ID No: 48) for a N-terminal and C-terminal truncation of an about 200 kDa of an outer membrane protein of Moraxella catarrhalis strain 4223 produced by pBR T7 3' 200 kDa(t)/KanR/ceer,~~

[[g]] (f) a nucleotide sequence encoding a 5'-truncation of a gene encoding an about 200 kDa outer membrane protein of another strain of *Moraxella catarrhalis* corresponding to those of (a), (b), (c) and (d) and being capable of expressing the corresponding N-terminally truncated about 200 kDa outer membrane protein from *E. coli*, and

[[h]] (g) a nucleotide sequence encoding a 5'- and 3'-truncation of a gene encoding an about 200 kDa outer membrane protein of another strain of *Moraxella catarrhalis* corresponding to those of (e) [[and]] [[f]] and being capable of expressing the corresponding N- and C-terminally truncated about 200 kDa outer membrane protein from *E. coli*.

Claim 4 (Withdrawn): An isolated and purified nucleic acid molecule which is a contiguous Nde I – Pst I fragment of SEQ ID No: 5.

Claim 5 (Currently amended): A vector for transforming a host comprising [[a]] the nucleic acid molecule as claimed in [any one of claims 1 to 4] claim 3.

Claim 6 (Original): The vector of claim 5 which is a plasmid vector.

Claim 7 (Withdrawn): The vector of claim 5 which has the identifying characteristics of

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Claim 8 (Withdrawn): The vector of claim 5 which has the identifying characteristics of pQWF shown in Figure 20.

Claim 9 (Currently amended): The vector of claim 5 which has the identifying characteristics of pBR pT7 3' 200 kDa(t), or pBR T7 3' 200 kDa(t)/KanR or ~~pBR T7 3' 200 kDa(t)/KanR~~ or shown in Figure 23.

Claim 10 (Currently amended): A host cell transformed by [[a]] the vector as claimed in claim 5 and expressing an about 200 kDa protein of a strain of *Moraxella catarrhalis* or an approximately C-terminal half thereof.

Claim 11 (Original): The host cell of claim 10 which is *E. coli*.

Claims 12-20 (Canceled)

Claim 21 (Withdrawn): A method for the production of an about 200 kDa outer membrane protein of a strain of *Moraxella catarrhalis* or an approximately C-terminal half thereof, which comprises:

transforming a host with a vector as claimed in claim 5,
growing the host cell to express the encoded about 200 kDa protein or truncation thereof, and
isolating and purifying the expressed about 200 kDa protein or truncation thereof.

Claim 22 (Withdrawn): The method of claim 21 wherein the host cell is *E. coli*.

Claim 23 (Withdrawn): The method of claim 21 wherein said encoded about 200 kDa protein or truncation thereof is expressed in inclusion bodies.

Claim 24 (Withdrawn): The method of claim 23 wherein said isolation and purification of the expressed about 200 kDa protein or truncation thereof is effected by:

disrupting the grown transformed cells to produce a supernatant and the inclusion bodies,
solubilizing the inclusion bodies to produce a solution of the recombinant about 200 kDa protein or truncation thereof,
chromatographically purifying the solution of recombinant about 200 kDa protein or truncation thereof free from contaminating proteins, and

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isolating the purified recombinant about 200 kDa protein or truncation thereof.